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| 10/057,586      | 01/25/2002  | D. Amnon Silverstein | 1007518             | 2929             |

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EXAMINER

QIN, YIXING

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2625

DATE MAILED: 05/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/057,586

Applicant(s)

SILVERSTEIN, D. AMNON

Examiner

Yixing Qin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Response to Amendment***

In response to applicant's amendment received 4/28/06, all requested changes have been entered.

### ***Response to Arguments***

Applicant's arguments, filed 4/28/06, with respect to the rejection(s) of claim(s) 1-22 have been fully considered and are persuasive. Therefore, the previous rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Winter et al (U.S. Patent No. 5,381,349). The Winter reference suggests/teaches a test pattern having a grating and a test patch area and the calibration of the test patch area using an intensity relating to the grating area. The Murashita and Hamaguri references are cited for certain dependent claims. This action is made final. Please see the rejection below.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

I. Claims 1, 3-11, 17 and 19-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Winter et al (U.S. Patent No. 5,381,349 – "Winter").

**Claims 1, 17 and 22.** Winter discloses an apparatus for calibrating an image output device (Fig. 1), comprising: a test pattern generator for generating a test pattern including a dynamic test patch area and a grating area (Fig. 1 item 24 and column 3, lines 21-22 – color patches 42 and 44 can be interpreted as the grating area, and comparison color patch 46 can be the test patch area), the test pattern supplied to the image output device (display 13 – Fig. 1), which outputs the test pattern; and an image input device for creating an image of the outputted test pattern (Fig. 1, item 22 and column 2, lines 66-68 and column 3, lines 1-7 - the RAM 22 can be interpreted as an input device since it contains the necessary software, see column 3, lines 3-7, to produce the necessary colors for the display); the test pattern generator using the image to adjust an intensity level of said dynamic test patch area to match an average intensity level of said grating area in the test pattern (Fig. 9 and column 5, lines 36-53).

**Claim 3.** Winter discloses “The apparatus of claim 1 wherein said test pattern generator sets said intensity level of said grating area and adjusts said intensity level of said dynamic test patch area by setting pixel values of said grating area and said dynamic test patch areas.” (column 3, lines 27-39).

**Claim 4.** Winter discloses “The apparatus of claim 1 wherein said dynamic test patch area comprises a plurality of pixels of substantially equal intensity levels (column 3, lines 41-43 – the user can vary the intensity level of the comparison patch 46, but this is uniform and means that the comparison patch 46 is made up of pixels of equal

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intensity levels ) and said grating area comprises at least two groups of pixels, each group having a different, predetermined intensity level.” (column 3, lines 29-39, where Winter discusses the varying brightness can be attributed to interspersed color and black lines)

**Claim 5.** Winter discloses “The apparatus of claim 4 wherein each of said two groups of pixels of said grating area are set to respective predetermined pixel values associated with said predetermined intensity levels” (column 3, lines 52-55 – this is the way the comparison patch 46 is defined, but should be apparent that the pixel color of the color patches 42 and 44 are also based upon a 0 to 255 value).

**Claim 6.** Winter discloses “The apparatus of claim 1 wherein said dynamic test patch area comprises an area of uniform pixel value (column 3, lines 52-66) and said grating area comprises a plurality of lines of pixels, a number of said lines of pixels having a first value and a second number of said lines of pixels having a second value different from said first value.” (column 3, lines 29-39).

**Claim 7.** Winter discloses “The apparatus of claim 6 wherein said test pattern generator is configured to control said uniform pixel value of said dynamic test patch area to adjust said intensity level of said dynamic test patch to be equal to said average intensity level of said grating area.” (Fig. 9 and column 5, lines 36-53).

**Claim 8.** Winter discloses "The apparatus of claim 1 wherein said test pattern generator can associate a plurality of pixel values with corresponding pixel intensities (column 3, lines 52-59, Winter explains how 127 is supposed to be a 50% intensity) , said grating area comprising pixels having a combination of at least two of said plurality of pixel values." (column 3, lines 29-39, Winter discusses how to create 33%, 50% and 66% intensity color patches 42 and 44).

**Claim 9.** Winter discloses "The apparatus of claim 8 wherein said combination of at least two of said plurality of pixel values results in a new average intensity level of said grating (column 3, lines 29-39, Winter discusses how to create 33%, 50% and 66% intensity color patches 42 and 44) whereby said test pattern generator is configured to adjust pixel values of said dynamic test patch to approximate said new average intensity level (Fig. 9 and column 5, lines 36-53).

**Claim 10.** Winter discloses "The apparatus of claim 1 wherein said test pattern generator can adjust said level of said dynamic test patch area to match a plurality of predetermined average intensity levels of said grating." (column 3, lines 52-59 and Fig. 9 and column 5, lines 36-53).

**Claim 11.** Winter discloses "The apparatus of claim 10 further comprising a gamma corrector responsive to said test pattern generator to map a plurality of pixel values to corresponding pixel intensity levels." (column 4, lines 18-48, especially lines 42-48).

**Claim 19.** Winter discloses "The method of claim 17 further comprising repeating said steps of setting and adjusting to provide a gamma correction value." (column 4, lines 18-48, especially lines 42-48).

**Claim 20.** Winter discloses "The method of claim 17, wherein said step of adjusting includes a step of measuring an average pixel illumination level of said grating area and a pixel illumination level of said dynamic test patch area." (Fig. 9 and column 5, lines 36-53).

**Claim 21.** Winter discloses "The method of claim 17 wherein said step of generating includes supplying a video signal to a video display." (column 3, lines 3-7).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

II. Claims 2, 13, 14, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winter et al (U.S. Patent No. 5,381,349- "Winter") in view of Murashita et al (U.S. Patent No. 6,850,245 – "Murashita").

**Claim 2, 18.** The Winter reference discloses a test pattern 40 in Fig. 3

It does not explicitly disclose "The apparatus of claim 1 wherein said test pattern further includes a fixed level area."

However, the secondary reference, Murashita, discloses in Fig. 12 a fixed level area, that is the background on which 101, 102 and 103 rest on.

Winter and Murashita are combinable because they are both in the art of calibrating displays.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have created a test pattern with a fixed level area.

The motivation would have been to enable an user or machine to have an area with a constant color or intensity for comparison purposes .

Therefore, it would have been obvious to combine Winter and Murashita to obtain the invention as specified in claim 2.

**Claim 13.** The Winter reference discloses a test pattern 40 in Fig. 3 and the adjusting of intensity level in column 3, lines 52-59.

The secondary reference, Murashita, discloses in Fig. 12 a fixed level area, which is the background on which 101, 102 and 103 rest on. Neither references



explicitly disclose "The apparatus of claim 1 wherein said test pattern generator can adjust an intensity level of said fixed level area to maintain a predetermined average intensity level of the output device. "

However, the fixed level area (e.g. a background in the test pattern would simply be another region in which a color or colors with an intensity value is displayed. Since Winter disclosed the ability to alter the intensities of a test pattern and a comparison pattern, it would be obvious to be able to alter the intensity of another type of patten – i.e. the fixed level area).

Winter and Murashita are combinable because they are both in the art of calibrating displays.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the ability to alter the intensity of the fixed level area.

The motivation would have been to enable an user or machine to have an area with a constant color or intensity for comparison purposes .

Therefore, it would have been obvious to combine Winter and Murashita to obtain the invention as specified in claim 13.

**Claim 14.** The Winter reference discloses a test pattern 40 in Fig. 3

It does not explicitly disclose "The apparatus of claim 1 wherein said test pattern generator additionally has an output of a fixed level area and said dynamic test patch, grating and fixed level areas comprise areas displayed on a video display, said dynamic

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test patch and grating areas comprising areas of said video display substantially smaller than and located at a periphery of said fixed level area.”

However, the secondary reference, Murashita, discloses in Fig. 12 a fixed level area, that is the background on which 101, 102 and 103 rest on. Although the patch and grating areas of Murashita is not “substantially smaller” than the fixed level area, it would be an obvious alteration if one wanted to change the sizes of the different areas.

Winter and Murashita are combinable because they are both in the art of calibrating displays.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have created a test pattern with a fixed level area that is larger than the test pattern.

The motivation would have been to enable an user or machine to have an large area with a constant color or intensity for comparison purposes .

Therefore, it would have been obvious to combine Winter and Murashita to obtain the invention as specified in claim 4.

**Claim 16.** This claim is substantially the same as claim 14 above, except that it can be printed on a medium. Winter discloses the use of a color printer in Fig. 1, item 20.

**III.** Claims 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winter et al (U.S. Patent No. 5,381,349 – “Winter”) in view of Hamaguri (U.S. Patent No. 6,462,777).

**Claim 12.** Winter discloses “The apparatus of claim 1 wherein said image output device includes a video monitor (Fig. 1 – display 13)...”

It does not explicitly disclose “...said image input device comprises a video camera.”

However, the secondary reference, Hamaguri discloses in Fig. 1, items 21 and 22 and column 5, lines 14-23 that images are inputted from the image pickup cameras.

Winter and Hamaguri are combinable because they are both in the art of calibration of displays.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have used a camera as an input device

The motivation would have been to enable an user with a camera to used readily image for calibrating an output device.

Therefore, it would have been obvious to combine Winter and Hamaguri to obtain the invention as specified in claim 12.

**Claim 15.** This claim is substantially the same as claim 12 above, but with a scanner, which is well-known in the art for inputting images into computers.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yixing Qin whose telephone number is (571)272-7381. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Lamb can be reached on (571)272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YQ



TWYLER LAMB  
PRIMARY EXAMINER

Supervisory Patent